



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/050,808	03/30/1998	YUTAKA MACHIDA	MAT-5860	7277

7590

04/24/2002

LAWRENCE E ASHERY  
RATNER & PRESTIA  
SUITE 301 ONE WESTLAKES BERWYN  
P O BOX 980  
VALLEY FORGE, PA 194820980

EXAMINER

WONG, ALLEN C

ART UNIT

PAPER NUMBER

2613

DATE MAILED: 04/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/050,808

Applicant(s)

MACHIDA, YUTAKA

Examiner

Allen Wong

Art Unit

2613

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,7 and 12-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,7 and 12-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Request for Continued Examination***

1. The request filed on 2/25/02 for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/050,808 is acceptable and an RCE has been established. An action on the RCE follows.

### ***Response to Arguments***

2. Applicant cancelled claims 1, 3-6 and 8-11. Claims 2 and 7 are still pending along with the newly added claims 12-20. The examiner uses Sun et al. (5,247,363) to reject the claims.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 2, 7 and 12-18 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Sun (5,247,363).

Regarding claim 20, Sun discloses a decoding apparatus for decoding an image signal representing motion, the image signal being a bit stream of a coded compressed video signal, the decoding apparatus comprising:

means for decoding the bit stream for information defining pixel blocks (figure 5, note elements 302 and 303 are used to decode the video data bit stream);

means for detecting an error in the information of one of the pixel blocks (figure 5, note the error is sent from element 302 to element 348, thus error is detected);

means for storing error information of the one of the pixel blocks in an error memory (figure 5, element 348);

means for storing video information of at least two frames which are prior to a present frame (figure 5, element 316);

means for generating, from the at least two frames, at least two predicted pixel blocks corresponding to a present pixel block in the present frame (figure 5, element 304 is a motion compensation means);

means for judging if one of the at least two predicted pixel blocks corresponds to error information stored in the means for storing (figure 5, element 344; note element 304 generates the at least two predicted pixel blocks and then the information is sent back to element 316, then the information is sent to element 344, the means for judging); and

means for determining if the one of the at least two predicted pixel blocks is used in reconstructing the present block, based on judging of the means for judging (figure 5, element 344; note element 348 sends the motion vector data and error information to element 344 for determining if the at least two predicted pixel blocks is used in reconstructing the present block).

Note claims 12-14, 16 and 17 have similar corresponding elements.

Regarding claim 2, Sun discloses the predicted pixel blocks are free from decoding error and are used in the reconstruction of the present pixel block (figure 5,

element 344 the predicted pixel blocks are free from decoding error and that these pixel blocks are used for reconstruction).

Regarding claim 7, Sun discloses the storing of bit errors in decoding error maps (figure 5, element 348).

Regarding claim 15, Sun discloses that if the at least two pixel blocks are judged not to correspond to error information, an average of the at least two predicted pixel blocks is used for reconstruction (figure 5, element 340; note an average value of the predicted pixel blocks is calculated at 340, then the average value is stored at element 342, next the average value is used for reconstruction).

Regarding 18, Sun discloses a variable length decoder (figure 5, element 303; note element 302 is a decompression controller that controls the VLD 303) and the error information is stored into the decoding error maps (figure 5, element 348).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sun (5,247,363) in view of Tahara (5,633,682).

Regarding claim 19, Sun discloses the motion compensation means for generating one predicted pixel block based on a reconstructed video frame that is one

frame before the present frame (figure 5, element 304 is a motion compensation means). Sun does not disclose the generation of another predicted pixel block based on a reconstructed video frame that is two frames before the present frame. However, Tahara teaches a scenario with frame F3 as the present video frame, frame F2 as the video frame prior to the present video frame, frame F1 as the further video frame two frames prior to the present video frame (see figure 4). Further, Tahara's figure shows the motion vector  $x_2$  is constructed from the present video frame F3 and a video frame prior to the present video frame F2 (a predicted pixel block based on frame N and frame N-1 is generated). Then the motion vector  $x_3$  is constructed from the present video frame F3 and the further video frame two frames prior to the present video frame F1 (another predicted pixel block based on frame N and frame N-2 is generated). Clearly, one of ordinary skilled in the art can see that Tahara's motion vector  $x_2$  can be the first motion vector and Tahara's motion vector  $x_3$  can be the second motion vector as disclosed by the applicant. In other words, Tahara discloses the generation of another predicted pixel block based on a reconstructed video frame that is two frames before the present frame. Therefore, it would have been obvious to one of ordinary skill in the art to take the teachings of Sun and Tahara, as a whole, for permitting the high quality display of sequential video information so as to meet with today's modern video encoding standards.

***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (703) 306-

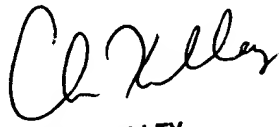
5978. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (703) 305-4856. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Allen Wong  
Examiner  
Art Unit 2613

AW  
April 9, 2002

  
CHRIS KELLEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600